



UNITED STATES MARINE CORPS
MARINE CORPS BASE
QUANTICO, VIRGINIA 22134-5001

MCBO 6240.1A
B 103
2 Mar 05

MARINE CORPS BASE ORDER 6240.1A

From: Commander
To: Distribution List

Subj: SANITARY REGULATIONS

Ref: (a) NAVMED P-5010
(b) Manual of Medical Department (NOTAL)
(c) Standard Method for Examination of Water and
Wastewater, American Public Health Association (NOTAL)
(d) Naval Supply Systems Command Manual (NOTAL)

Encl: (1) Food Service Operations
(2) Barber and Beauty Shops
(3) Living and Working Spaces
(4) Swimming Pools
(5) Laundry and Dry Cleaning Facilities
(6) Garbage and Refuse Disposal
(7) Standards for Potable Water
(8) Sewage Disposal
(9) Disease Vector Control
(10) Sauna and Steam Room Sanitary Regulations

1. Purpose. To promulgate sanitary regulations and implement policies contained in the references and other pertinent directives from higher authority. The references provide guidance on implementation of sanitary regulations at the local level.

2. Cancellation. MCBO 6240.1.

3. Summary of Revision. This revision contains significant changes and should be reviewed in its entirety.

4. Information. The field of sanitation includes the inspection, investigation, laboratory analysis and technical supervision of food service facilities, food products served, water supply, sewage disposal, garbage and refuse disposal, disease vector control, sanitary aspects of living spaces and housing, barber and beauty shops, and those elements not specifically mentioned above which affect the health and well-being of all personnel and their family members.

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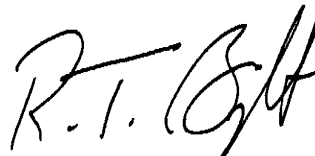
5. Action

a. Commanding Officer, Naval Medical Clinic, (NMCL) Quantico.
The Head, Preventive Medicine Department, NMCL Quantico will conduct inspections of food service facilities; barber and beauty shops; water and wastewater treatment plants; living quarters and swimming pools on a monthly or quarterly basis, as outlined in reference (a) or as appropriate for seasonal requirements (e.g., unnecessary to inspect outdoor swimming pools during winter season).

(1) Submit written reports of inspection results to the Comdr MCB (B 051) and activity heads concerned. Include results of sanitation inspections, immunizations, communicable disease control, medical examinations and violations of the enclosures.

(2) Report unsanitary conditions or situations to the Comdr MCB (B 051), which are imminent threats to health in separate reports when deemed appropriate by the Head, Preventive Medicine Department, NMCL Quantico.

b. Assistant Chief of Staff, G-5. Reference (a) succinctly addresses the specific area of sanitation and is the primary guidance used by the Preventive Medicine Department to evaluate sanitation in virtually any setting. AC/S G-5 will ensure the Housing and Food Service officers and all other department managers responsible for these programs maintain a copy for easy reference.



R. T. BRIGHT
Chief of Staff

DISTRIBUTION: A

FOOD SERVICE OPERATIONS

1. Purpose. To maintain the highest degree of food safety through education, inspection and appropriate preventive and remedial actions by the Food Service/Preventive Medicine team.

2. Guidance. Chapter 1 of NAVMED P-5010 provides a complete outline for operating food service facilities from small-scale snack sales to large-scale galleys in a safe and sanitary manner. This guidance is applicable to vending machine sales.

NOTE: Unit coffee messes do not require individual inspections by Preventive Medicine but must be maintained in a sanitary manner.

3. Inspections. The Preventive Medicine Department will conduct all periodic inspections of food service facilities aboard MCB Quantico per chapter 1 of NAVMED P-5010. Chapter 1 of NAVMED P-5010 will be used for all regulatory inspections of food service facilities aboard MCB Quantico and is interpreted as having the same force as federal food regulations have in the civilian sector.

a. Food service facilities violating the regulations set forth in chapter 1 of NAVMED P-5010 will be subject to remedial recommendations and the possibility of closure depending on the severity of the violation(s).

b. Findings of periodic inspections are forwarded through the appropriate chain of command to keep line commands and civilian contracting managers apprised of the sanitary conditions of the food service facilities, which they manage.

4. Medical Examinations. The Preventive Medicine Department will conduct required medical screenings for all food service workers aboard MCB Quantico. The screenings are required before the first day the individual begins work and are required on an annual basis thereafter.

5. Training. The Preventive Medicine Department will publish a quarterly training schedule and will present training courses for food service workers (4-hour course) at least twice per quarter and will present manager training (18-hour course) at least once per quarter. All food service personnel must have completed the appropriate level of training for their position within 30 days of beginning work at a food service facility and annually thereafter.

ENCLOSURE (1)

BARBER AND BEAUTY SHOPS

1. Purpose. To provide appropriate sanitary guidelines for beauty and barber shops operating aboard MCB Quantico.
2. Guidance. NAVMED P-5010 provides the definition and appropriate requirements for health screening and operation of both beauty and barber shop personnel. Barber shops and beauty shops aboard MCB Quantico will be operated in a sanitary manner as denoted in NAVMED P-5010.
3. Execution. The Preventive Medicine Department will conduct required medical screenings for beauty and barber shop personnel aboard MCB Quantico. The screenings are required before the first day the individual begins work and are required on an annual basis thereafter.

ENCLOSURE (2)

LIVING AND WORKING SPACES

1. Scope. A habitable and healthy environment in living and working spaces is considered to be essential in maintaining efficiency and morale of personnel. Major factors which pertain to living and working spaces are sleeping arrangements, floor area, ventilation and air volume, heating, sanitary fixtures and related features such as lighting and color.

2. Minimum Habitability Criteria for Barracks. Requirements and allowances for construction and maintenance of sanitary facilities consistent with the highest level of sanitation are available in NAVFACENGCOM and BUMED manuals and technical publications. Adequate plumbing fixtures, lighting, ventilation and other utility standards may be found in NAVMED P-5010; Manual of Medical Department; Standard Method for Examination of Water and Wastewater, American Public Health Association; and Naval Supply Systems Command Manual.

3. Sanitary Requirements for Living and Working Spaces. The following general measures will be adhered to in maintaining a proper sanitary condition in all living and working spaces.

a. The practice of "dry sweeping" will be avoided by the judicious use of soap and water or other cleaning agents, such as sweeping compounds, in spaces where applicable.

b. Paint work on stanchions, passageways and other areas will be maintained in a clean condition at all times.

c. Dry cleaning and laundering of textiles such as blankets, sheets and mattress covers will be accomplished frequently to keep the bedding as clean and dust-free as possible.

d. Drinking fountains will be cleaned at least once daily. Drinking fountains will be of the angle-jet type.

e. Toilet stools, urinals, lavatories and showers will receive a thorough cleaning daily. Failure to clean these areas results in unattractive accumulations of scum, scale, dust, fungus or mold.

f. Mops, brooms, brushes, rags and other cleaning gear will be thoroughly cleaned and stowed in a ventilated area after each use.

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g. Trash cans in living and working spaces will be provided with covers and be cleaned inside and out at least once daily when emptied. Failure to clean trash cans, results in the accumulation of filth, which creates odors and attracts insects and rodents. Self-closing devices may be provided for the cans.

h. Shower rooms will be well lit and well ventilated to promote cleaning and drying in order to eliminate unpleasant odors. The floors will be constructed to drain readily. Shower curtains, mats, bulkheads, and decks will be free of mildew, odor, and soap accumulation.

i. All outside openings such as windows, doors, vents and ducts will be screened to prevent the entrance of insects and rodents. Screen doors will open outward and be self-closing.

(1) The use of wooden gratings or duckboards in shower rooms is not authorized. Duckboards contribute to the spread of fungus infections if not cleaned and dried frequently.

(2) Bulkheads and decks in shower rooms will be impervious to water and will be kept free from molds and soap scum. Tile or terrazzo flooring is the most desirable for shower rooms.

j. Plumbing fixtures will conform to Federal specifications and will be constructed/maintained to prevent cross-connection with potable water sources.

k. Bedding, including mattresses, will be aired outdoors at frequent intervals in sunlight if practicable. While being aired, bedding should be inspected for cleanliness, state of repair and insect infestation. Insect infestation or evidence of insects having been present in bedding requires the institution of a thorough control program. Before use, mattresses will be fitted with suitable mattress covers. Mattresses not in use will be stored where they will not be accessible for lounging and will not collect soil. All used bedding shall be laundered or dry cleaned before reissue.

l. Insect and rodent control in living and berthing spaces will be accomplished by the Head, Maintenance Branch, G-5. Emphasis will be directed toward preventive control methods rather than corrective measures. Storage and consumption of foodstuffs in actual sleeping areas is prohibited.

ENCLOSURE (3)

SWIMMING POOLS

1. General. Water does transmit disease and the environment of swimming pools and bathing places is favorable to the spread of infection. Injury or death may also result from hazards found in these swimming and bathing areas.

2. Responsibilities

a. Commanding Officer, Naval Medical Clinic (NMCL). The Head, Preventive Medicine Department, NMCL Quantico is responsible for vigilant supervision of these aspects of operation, maintenance and laboratory practices which pertain to health protection and for making pertinent recommendations to the Comdr MCB per NAVMED P-5010.

b. Assistant Chief of Staff, G-5. The Head, Maintenance Branch, G-5 is concerned with the design, construction, maintenance and technical operation of swimming pools and bathing areas.

c. Director, Marine Corps Community Services Division. The special services officer is responsible for providing lifeguards and general operation of the swimming pools.

3. Design and Construction of Artificial Pools. Specifications for design, construction, pumps, water pipe strainers, suction cleaners, heating, filtration, and makeup water facilities for swimming pools are located in current NAVFACENCOM instructions.

4. Records. The following records will be maintained and filed at the NMCL Quantico and the Maintenance Branch, G-5:

a. Total number of swimmers per day and maximum number of swimmers using the pool at any given time.

b. Length of time pumps and filters are in operation.

c. Time and date the filter is backwashed and cleaned.

d. Amount of chemicals added and time of their addition (chlorine, aluminum, and soda ash).

e. Hourly record of chlorinator and chemical solution feeder settings.

f. Inventory of chemicals on hand.

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- g. Date of vacuum cleaning.
 - h. The pH test results three times daily minimum or as frequently as necessary to assure the pool is within prescribed limits.
 - i. Temperature readings twice daily minimum or as often as necessary to indicate adequate temperature control.
 - j. Residual chlorine readings will be taken every 2 hours of operation.
 - k. The total alkalinity and/or calcium hardness each time accomplished.
5. Sanitary Operation of the Pool. Chapter 4 of NAVMED P-5010 discusses all aspects of operating swimming pools in an approved and sanitary manner. Chapter 4 of NAVMED P-5010 provides guidance on recirculation, filtration, chemical and physical quality of the water to include chlorination, pH, and bacteriological standards. This chapter also provides guidance on housekeeping for dressing rooms and toilet rooms located at swimming pool sites.
6. Personal Regulations for Swimmers. A placard including, but not limited to, the following rules and regulations pertaining to swimmer sanitation and safety must be posted in a prominent location:
- a. All patrons must comply with the directions of lifeguards and/or the pool manager.
 - b. Personnel must take a cleansing shower prior to entering the pool.
 - c. No persons with sores, skin diseases or bandages will be permitted in the pool.
 - d. Spitting, urinating or otherwise contaminating the pool or walkways is prohibited.
 - e. Eating, drinking or smoking in the pool or on pool deck is prohibited.
 - f. No pets allowed in pool area, with the following exceptions: (1) a guide dog escorting a blind person, and (2) working dogs accompanied by handlers.

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- g. Boisterous or rough play is not permitted in the pool area.
 - h. Rafts, air mattresses or flotation devices that could easily become detached from the user are prohibited (life jackets, water wings or similar personal safety items may be used by nonswimmers and are permitted in the shallow area only).
 - i. Nonswimmers are permitted in shallow area only.
 - j. Diving is permitted in designated areas only.
 - k. Gymnastics will not be permitted on the diving boards.
 - l. Swimming is not permitted in diving areas. Double bouncing is not permitted; only one bounce per dive.
 - m. No fraternizing with lifeguards is permitted.
 - n. Climbing on lifeguard towers or using lifesaving equipment for other than emergency use is strictly prohibited.
7. Safety Precautions. Construction, appliances, and operation shall be such as to reduce to a minimum the danger of drowning and of injuries to bathers. Recommendations are as follows:
- a. Each lifeguard station shall be equipped with appropriate safety and rescue devices.
 - b. One lifeguard is required for up to 50 swimmers and an additional lifeguard for each designated diving area.
 - c. Each pool will have the following minimum first aid equipment:
 - (1) Stretchers,
 - (2) Blankets,
 - (3) First aid kit,
 - (4) Drinking water,
 - (5) First aid cot,
 - (6) Pillow,
 - (7) Telephone with emergency numbers,

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(8) Splints, and

(9) Back board.

d. Pool operators and lifeguards will be trained and certified in basic rescue and life-saving techniques per American Red Cross standards.

ENCLOSURE (4)

LAUNDRY AND DRY CLEANING FACILITIES

1. General. Sanitary hazards encountered in laundry and dry cleaning establishments are variable throughout the entire process, from delivery of contaminated clothing to the finished products. Therefore, the following standards must be met.
2. Sanitary Requirements. Laundry and dry cleaning premises will be maintained in a clean and sanitary condition, free from infestation by rodents and insects. Chapter 2 of NAVMED P-5010 provides requirements that must be followed to maintain these facilities in a sanitary manner. Chapter 2 of NAVMED P-5010 outlines standards applicable to employees, sanitation, and industrial hygiene and safety issues in the laundry and dry cleaning facility.

ENCLOSURE (5)

GARBAGE AND REFUSE DISPOSAL

1. General. Disposal of refuse, trash, and garbage is of medical importance because of the associated hazards to health. Refuse, by improper collection and disposal, becomes an indirect but important factor in the spread of disease.

2. Definitions. The various kinds of waste are classified and defined as follows:

a. Ashes. Ashes are solid inert remains of burned materials.

b. Combustible Rubbish. Combustible rubbish consists of such unusable, nonsalvagable materials (not disintegrated) that can be destroyed by burning. It includes cardboard and wooden cartons and crates, food cartons, wood scraps, rags, paper, books, and medical wastes.

c. Dead Animals. Self-Explanatory.

d. Garbage. Garbage includes those materials of organic substances that are significant to public health in that they are capable of supporting bacterial life and/or are attractive to predatory animals and vectors or pests. This classification would include such materials as meat, fish, fowl, vegetables, fruits, and edible oils.

e. Liquid and Semi-Liquid Combustible Wastes. Liquid and semi-liquid combustible wastes includes petroleum sludge, crankcase oils, and greases and tars.

f. Noncombustible Rubbish. Noncombustible rubbish consists of nonsalvagable materials that cannot be destroyed by burning such as glass, cans, metals, and pottery.

g. Trash. Trash consists of disintegrated combustible rubbish such as paper, sawdust, and leaves.

3. Containers

a. Containers must be properly constructed and maintained to reduce the attraction of insects and rodents and prevent their entrance. Containers should be designed specifically for refuse and garbage. To be effective, they must be constructed of rustproof metal and must

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have watertight bottoms, tight-fitting lids, and watertight seams. Damaged containers must be repaired or replaced.

b. When dempster-dumpster containers are utilized for the collection of wet refuse, they should be of the sump type, with a bottom opening constructed to prevent leakage. Where containers of this type are in use, wet garbage will be drained and securely wrapped before placing in the container.

c. Platforms provided for garbage or trash containers should be conveniently located, adequate in size, accessible to collection vehicles or personnel, and easily cleaned and drained. A solid block of concrete is most easily kept in a sanitary condition and is recommended for permanent installations. Wooden or asphalt platforms are unsatisfactory in that the cracks and crevices will often collect fragments of refuse and may even harbor insect larvae.

d. Routine policing of the area surrounding the platforms of any type is essential so that spillage will be cleaned up immediately to facilitate insect and rodent control.

e. Lids on all dumpsters will be kept closed at all times. Normally personnel utilizing the dumpsters will be responsible for keeping the lids closed. When collection vehicles empty dumpsters the driver of the vehicle will ensure that lids are closed.

4. Frequency of Collection

a. Garbage grinders are considered ideal for the removal of garbage in that the food scraps and semi-liquid non-combustible wastes are discharged directly into the sewage system, thereby eliminating storage and exposure to insects and rodents.

b. Waste products are produced in large volumes at dining facilities, clubs and commissaries and should be collected daily. Trash collection in government quarters should be conducted weekly or more often if necessary. Rubbish should be removed as necessary to maintain cleanliness and prevent hazards.

STANDARDS FOR POTABLE WATER

1. Quality Standards. The standards for bacteriological quality, physical and chemical characteristics and radioactivity will be per NAVMED P-5010 and Commonwealth of Virginia standards. Where standards conflict, Commonwealth of Virginia standards will apply.

2. Definition of Terms. The following terms are defined for clarification in interpretation of standards:

a. Adequate Protection by Natural Means. This involves one or more of the following processes of nature that produce water consistently meeting the requirements of these standards:

(1) Dilution, storage, sedimentation, sunlight, and aeration.

(2) Associated physical and biological processes which tend to accomplish natural purification in surface waters.

(3) In the case of ground water, the natural purification of water by infiltration through soil and percolation through underlying material and storage below the ground water table.

b. Adequate Protection by Treatment. Any one or the combination of adequate protection by treatment by controlled processes of coagulation, sedimentation, absorption, filtration, disinfection, or other processes that produce water consistently meeting the required standards. This protection also includes processes which are appropriate to the source of supply, and facilities which are of adequate capacity to meet maximum demands without creating health hazards, and which are located, designed and constructed to eliminate or prevent pollution.

c. The Coliform Group. Includes all organisms considered in the coliform group as set forth in Standard Method for Examination of Water and Wastewater, which is prepared and published jointly by the American Public Health Association and Water Pollution Control Federation.

d. Health Hazards. Any conditions, devices or practices in the water supply system and its operation that create, or may create, a danger to the health and well-being of the water consumer. An example of a health hazard is a structural defect in the water supply

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system, whether of location, design or construction, which may regularly or occasionally prevent satisfactory purification of the water supply or cause it to be polluted from external sources.

e. Pollution. As used in these standards, pollution means the presence of any foreign substance (organic, inorganic, radiological or biological) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.

f. The Standard Sample. The test standard sample will consist of 100 ml of potable water.

g. Water Supply System. This includes the facilities and auxiliaries for collection, treatment, storage, and distribution of the water from the sources of supply to the free-flowing outlet of the ultimate consumer.

3. Source and Protection

a. The water supply should be obtained from the most desirable source feasible and steps should be taken to prevent or control pollution of the source. If the source is not adequately protected by natural means, the supply shall be adequately protected by treatment.

b. Frequent sanitary surveys shall be made of the water supply system to locate and identify health hazards that might exist in the system.

c. Approval of water supplies shall be dependent in part upon:

(1) Enforcement of rules and regulations to prevent development of health hazards.

(2) Adequate protection of the water quality throughout all parts of the system, as demonstrated by frequent surveys.

(3) Proper operation of the water supply system under the responsible charge of personnel who are certified or licensed by the state or Federal authorities.

(4) Adequate capacity to meet peak demands without development of low pressures or other health hazards.

(5) Record of laboratory examinations showing consistent compliance with the water quality requirement of these standards.

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4. Standards

a. Bacteriological Quality Limits. The maximum contaminated level for coliform bacteria (also called total coliform) is based on the presence or absence of coliforms in a sample rather than on an estimate of coliform density. When coliform bacteria occur in potable water, a set of repeat samples must be collected for each total coliform-positive routine sample and be analyzed for total coliforms. Use the sampling protocol listed in chapter 5 of NAVMED P-5010.

b. Chemical Characteristics Limits. Drinking water will not contain impurities in concentrations that may be hazardous to the health of consumers. Nor should it be excessively corrosive to the water supply system. Substances that may have deleterious physiological effects, or for which physiological effects are not known, shall not be introduced into the system in a manner which would permit them to reach the consumer.

(1) The National Primary Drinking Water Regulations will be adhered to in their entirety. Consult the most recently promulgated hard copy and/or internet-based updates (e.g., www.epa.gov) to obtain current standards for drinking water.

(2) The contaminants contained in the National Secondary Drinking Water Regulation are those that may adversely affect the aesthetic quality of the drinking water. These secondary levels represent reasonable goals for drinking water quality, but are not federally enforceable. Consult the most recently promulgated hard copy and/or internet-based updates (e.g., www.epa.gov) to obtain current standards for drinking water.

SEWAGE DISPOSAL

1. Definition. Sewage is the liquid of a community consisting of water, fecal materials, food wastes, laundry and bath water and other liquid or water-transported wastes.
2. Purpose of Disposal. The proper disposal of sewage is one of the important measures for the control of water-borne diseases and must accomplish the following:
 - a. Destruction or disposal of material that may contain pathogenic organisms and destruction of such organisms,
 - b. Destruction or prevention of breeding places of insects and rodents that can spread disease, and
 - c. Removal or prevention of conditions offensive to the senses.
3. Responsibility. Official interest in the sewage system is limited to such inspection and examination as may be required to ensure that the collection, treatment, and disposal of the sewage do not create nuisance or conditions hazardous to the health of military or civilian personnel. Reports of suspected discrepancies in sewage systems and recommendations for necessary corrective action should properly be discussed and evaluated with the Head, Maintenance Branch, G-5 prior to submission, if circumstances permit.
4. Inspection of Sewage Treatment Plants. The Preventive Medicine Department will conduct periodic inspections of sewage treatment plants. Periodic examinations of effluent, bacteriologically, and for chlorine residual, will be accomplished per current directives and Commonwealth of Virginia standards.
5. Chlorination of Sewage
 - a. Chlorine is normally applied to sewage for prechlorination for the control of the hydrogen sulfide normally found in sewage, and final (or post) chlorination for disinfecting purposes.
 - b. The hydrogen sulfide that develops in stale sewage, in the presence of water, produces sulfurous deterioration of metal and concrete structures in the plant, and may cause prohibitive maintenance costs. Chlorine is sufficiently active as an oxidizing agent to break down the hydrogen sulfide and liberate free, insoluble sulfur.

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c. In addition to corrosion prevention, the odor of hydrogen sulfide and associated organic mercaptans is controlled by the addition of chlorine. When prechlorination is employed, it is important not to use excessive amounts so as to leave a residual of free chlorine, since its bacteriostatic action will interfere with the biological processes of the secondary treatment system.

d. None of the mechanical or biological methods of sewage treatment removes all of the pathogenic organisms even though referred to as "completed treatment." When water supply inlets are located near the sewer outfall, disinfection of the treated effluent is mandatory.

e. Post chlorination provides an effective disinfection of sewage effluents, which do not contain excessive amounts of organic matter. Chlorine does not have the penetrating ability to disinfect suspended solids. For effective disinfection, the rate of chlorine feed should be high enough to establish a residual of 0.5 to 0.7 ppm at the end of a 30-minute contact time. The amount of chlorine is dependent upon the composition of the treated effluent.

f. The character of sewage effluent from any type of treatment is subject to wide variation, and frequent adjustment of the chlorine dosage is required to maintain uniform results.

6. Laboratory Control. Laboratory control of sewage treatment plant operation includes determination for suspended solids, biochemical oxygen demand (BOD) phosphorus, total nitrogen, pH, dissolved oxygen, fecal coliform, and residual chlorine. Plants that serve populations of less than 1,000 do not generally require daily analysis unless the effluent affects public drinking water or recreational waters. At large plants using complicated treatments, the routine analysis should be fairly complete. In cases where public drinking water or recreational waters are affected by small plants, or at plants using complicated treatment methods, routine and special analysis must be conducted on a scheduled or reasonable time interval.

a. Chlorination of sewage is required for a number of reasons as listed in paragraph 5, above.

b. BOD examinations are conducted to determine the quantity of dissolved oxygen required during stabilization of the decomposable organic matter by aerobic biochemical action.

c. Laboratory examinations for suspended solids are conducted to determine the concentration of solids in the effluent.

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d. The above listed laboratory tests must be conducted as scheduled by the Virginia State Water Control Board.

e. All laboratory analysis and tests will be performed per the methods described in the Standard Methods for Examination of Water and Wastewater.

f. Every effort will be made to upgrade effluent waste and, in cooperation and coordination with state and Federal agencies, to eliminate contamination of natural waters.

7. Cross Connections. All cross connections between potable water supplies and sewage systems are hazardous. The standards contained in this enclosure are designed to eliminate or prevent cross connections, thereby reducing the necessity of backflow prevention devices. Cross connections, with or without such devices, may still be found occasionally at some activities and should be eliminated. When fresh water must be supplied to sewage lines or appurtenances, an over the-rim type of supply must be provided. This type of construction prevents any possibility of flow reversal due to siphonage, pressure or flood. When necessary, water pressure may be produced by means of a pump, so applied that it takes suction from the over the rim supply and discharges it directly into the contaminated system, rather than by means of cross connections to the pressurized fresh water system. The reason for this precaution is that when check valves are used to prevent the backward flow of sewage, they have been found to be unreliable. The following are the most common cross connections found at sewage treatment plants and pumping stations:

- a. Flushing connections for sludge hoppers or digesters.
- b. Priming connections for pumps or water seals.
- c. Makeup water connections to digester heating coils and systems.
- d. Water ejectors for draining sewage from pits.
- e. Flushing nozzles for screening bins and grit chambers.
- f. Scum spraying or breakup nozzles at digester roofs.
- g. Sewer flush tanks.
- h. Water hoses for flushing and cleanup purposes that may be left with the nozzles submerged in sewage that could permit backflow of sewage into potable waterlines.

DISEASE VECTOR CONTROL

1. General. The term "vector" refers to all insects, rodents and related organisms that play a significant role in the transmission of disease to man as intermediate hosts or reservoirs of disease; and present problems of sanitary or hygienic significance which may otherwise affect the health and efficiency of personnel.

2. Responsibility. The Head, Preventive Medicine Department, NMCL Quantico in coordination with the Head, Maintenance Branch, G-5 is responsible for:

a. Inspections and surveys to determine the species, source, location and density of vectors. These surveys include West Nile Virus surveillance and processing collected ticks for Lyme disease,

b. Recommendations relating to sanitation standards and practices affecting the presence and abundance of vectors and utilization of vector control methods,

c. Evaluation of the effectiveness of vector control measures,

d. Inspections and recommendations to ensure that pesticides are used safely per current directives,

e. Provide information on all appropriate personal protective measures against vectors,

f. Coordination with civilian and other governmental agencies having vector control problems that may affect naval personnel on or in the vicinity of this command,

g. Compliance with all appropriate public health quarantine measures, and

h. Reviewing and approving activity pest management plans.

3. The medical department may be additionally charged by the Comdr MCB with the responsibility for all operational phases of the vector control program as follows:

a. In the event of a vector-borne disease outbreak,

b. In the absence of a public works department, such as at certain shore installations, on board ships and with troops in the field,

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c. In the control of vectors actually infesting humans (e.g., lice and mites), and

d. In disasters.

4. Reporting. Reporting of vectors in quarters, buildings, dining facilities, grounds and other property may be done by submitting a work request to the Head, Maintenance Branch, G-5.

5. Inspection of Reported Vector Infested Areas. Upon receipt of a reported infestation, an appointment will be made with the complaining party for an inspection of the area.

6. Eradication. The following procedures will be taken to eradicate and prevent future infestation of vectors:

a. An appointment will be made for treating the area. In a quarters building occupied by more than one family, or buildings occupied by more than one activity, the vector control inspector will decide whether or not the entire building will be treated.

b. The following instructions will be given to occupants or personnel in charge for preparation of areas to be treated:

(1) Remove all foodstuffs and dishes from shelves and place them on a table and cover.

(2) Remove all articles from closets and place them on a bed and cover with a sheet.

(3) Remove all drawers from dressers and cabinets. It is not necessary to empty drawers.

(4) Do all cleaning prior to treatment.

(5) Move all furniture one foot from the wall.

(6) The room should be well ventilated for at least 3 hours after treatment.

(7) Do not wash off insecticide after treatment. Let residual air-dry or wipe with cloth before putting items back into the cupboards.

c. To prevent further infestation of an area, measures must be taken to eliminate access to food and harborage of vectors.

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7. Followup and Preventive Treatment of Areas. After heavily infested areas have been initially treated, it may be necessary to retreat the area one or more times. Preventive treatment of an area or building may be done at regularly scheduled times upon request of personnel in charge of an area should it be deemed necessary. These areas will be thoroughly cleaned prior to the scheduled treatment.

SAUNA AND STEAM ROOM SANITARY REGULATIONS

1. General. Saunas and steam rooms are normally located within a gymnasium or swimming pool facility. These rooms are used for relaxation or as part of an individual physical fitness program. Saunas are based on the principle of inducing perspiration through high temperature dry heat, whereas a steam room uses moist heat. Saunas and steam rooms shall be structurally sound, clean, and free of any potentially dangerous conditions.

2. Structure. Saunas and steam rooms shall be constructed per NAVFACENGCOM directives and NAVMED P-5010.

3. Sanitation. Operation of saunas and steam rooms will be in compliance with chapter 4 of NAVMED P-5010.